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 PEFC; Current density distribution; Relative humidity distribution; Membrane; Gas diffusion layer (Inoue, G. (154) 8)

Oil
 Oil; Hydrogen; Fuel cells; Cost; Reliability; European union research (Zegers, P. (154) 497)

o-LiMnO_2 cathode
 o-LiMnO_2 cathode; Li and F additions; Elevated-temperature cycling; Lithium-ion batteries; Capacity fading; Rate capability (Kim, T.-J. (154) 268)

On-board hydrogen production
 Gasoline fuel processor; Automotive; Polymer electrolyte membrane fuel cell; Response time; Battery size (Mitchell, W. (154) 489)

Organic waste
 Biomass; Biofuels; Fuel cells; Reformers (Gair, S. (154) 472)

Overcharge
 Lithium cell; Safety; Electrolyte (Watanabe, Y. (154) 246)

Oxygen deficiency
 Oxygen deficiency; Spinel; 3.2 V plateau; Structure around deficiency (Yoshio, M. (154) 273)

Oxygen reduction
PEM fuel cells; Ammonia poisoning; Membrane conductivity; Hydrogen oxidation (Halseid, R. (154) 343)

Oxygen reduction catalysts
Proton exchange membrane fuel cell (Sari Ozenler, S. (154) 364)

Parallel serpentine channels
Water management; Proton exchange membrane; Pressure drop; Air–water behaviour; CFD modeling (Jiao, K. (154) 124)

Parameter estimation
Hammerstein systems; Nonlinear systems; Solid oxide fuel cells; System identification (Jurado, F. (154) 145)

Passive
Direct fuel cell; Architecture; Bi-cell; Flow field; MEA morphology (Qian, W. (154) 202)

PEFC
PEFC; Numerical analysis; Current density distribution; Gas flow rate distribution; Separator (Inoue, G. (154) 18)

PEFC
PEFC; Numerical analysis; Current density distribution; Relative humidity distribution; Membrane; Gas diffusion layer (Inoue, G. (154) 8)

PEFC
PEFC; PEMFC; Fuel cell; Power train; Dynamic operation; Air supply (Philipps, F. (154) 412)

PEM
PEM; Fuel cell; Stack; Impedance; EIS (Hakenjos, A. (154) 360)

PEM fuel cell
Fuel reforming; Hydrogen production (Ersoz, A. (154) 67)

PEM fuel cell
Nafion®; High temperature; Electrode (Song, Y. (154) 138)

PEM fuel cell
PEM fuel cell; Dynamic modelling; Hardware in the loop; Test benches; Simulation (Lemeš, Z. (154) 386)

PEM fuel cell
PEM fuel cell; Gas diffusion layer; Two-phase flow; Visualization; Microscale; Hydrophobic porous media; Fibrous media (Litster, S. (154) 95)

PEM fuel cells
Diesel fuel processor; Autothermal reforming; Steam reforming; APU (Cutillo, A. (154) 379)

PEM fuel cells
PEM fuel cells; Ammonia poisoning; Membrane conductivity; Hydrogen oxidation; Oxygen reduction (Halseid, R. (154) 343)

PEMFC
PEFC; Fuel cell; Power train; Dynamic operation; Air supply (Philipps, F. (154) 412)

PEMFC
PEMFC; Cold start; Portable fuel cells; Statistical analysis; Degradation (Oszcipok, M. (154) 404)

PEMFC
PEMFC; Free-breathing; Freezing; Cold-start; Planar cell (Hottinen, T. (154) 86)

Photovoltaic panel
Photovoltaic panel; *I*–*V* characteristic; Linear MOSFET; Maximum power point (Kuai, Y. (154) 308)

Planar cell
PEMFC; Free-breathing; Freezing; Cold-start (Hottinen, T. (154) 86)

Planar PEMFC
Air-breathing PEMFC; Water management; Hydrophobic and hydrophilic diffusion layer; Geometry variation; Printed circuit board (PCB) (Schmitz, A. (154) 437)

Plastic crystals
Pyrazolium imide; Solid electrolytes; Ionic liquids; Lithium batteries (Abu-Lebdeh, Y. (154) 255)

Polarization curve prediction
Micro single-chamber intermediate temperature solid oxide fuel cell; Computer simulation; Macro modelling (Chung, C.-Y. (154) 35)

Polyaniline
Polyaniline; Carbon fiber; DMcT; Composites; Charge–discharge tests (Canobre, S.C. (154) 281)

Polymer electrolyte fuel cell
Polymer electrolyte fuel cell; Current density distribution; In situ measurement (Ghosh, P.C. (154) 184)

Polymer electrolyte fuel cell
Polymer electrolyte fuel cell; Current distribution; Lateral currents; Finite element modelling; Measurement uncertainty (Eckl, R. (154) 171)

Polymer electrolyte fuel cell
Polymer electrolyte fuel cell; H₂/CO₂ oxidation; Air bleed; Catalyst poisoning; Temperature effects; Model studies (Behm, R.J. (154) 327)

Polymer electrolyte membrane fuel cell
Gasoline fuel processor; On-board hydrogen production; Automotive; Response time; Battery size (Mitchell, W. (154) 489)

Polymer Li-ion battery
Lithium bis(oxalate)borate; Microporous gel electrolyte; Gel polymer electrolyte; High temperature performance (Zhang, S.S. (154) 276)

Porous silicon
Miniature fuel cell; Membrane; Chemical grafting; Nafion®; Integration (Pichonat, T. (154) 198)

Portable fuel cells
PEMFC; Cold start; Statistical analysis; Degradation (Oszcipok, M. (154) 404)

Power train
PEFC; PEMFC; Fuel cell; Dynamic operation; Air supply (Philipps, F. (154) 412)

Pressure drop
Water management; Proton exchange membrane; Parallel serpentine channels; Air–water behaviour; CFD modeling (Jiao, K. (154) 124)

Printed circuit board (PCB)
Air-breathing PEMFC; Water management; Planar PEMFC; Hydrophobic and hydrophilic diffusion layer; Geometry variation (Schmitz, A. (154) 437)

Product distribution
Ethanol oxidation; Pt/Vulcan; PtRu/Vulcan; Pt₃Sn/Vulcan; DEMS (Wang, H. (154) 351)

Propylene carbonate
Electrochemical double-layer capacitor; Impedance; Activated carbon; Arrhenius (Kötz, R. (154) 550)

Proton exchange membrane
Fuel cells; PVDF; SEBS; Melt blending; Compatibilization (Mokrini, A. (154) 51)

Proton exchange membrane
Water management; Pressure drop; Parallel serpentine channels; Air–water behaviour; CFD modeling (Jiao, K. (154) 124)

Proton exchange membrane fuel cell
Proton exchange membrane fuel cell; Oxygen reduction catalysts (Sari Ozenler, S. (154) 364)

Prototyping
Fuel cell systems; Simulation; Control; Rapid; Air supply; Fuel processing (Pischinger, S. (154) 420)

Pt/Vulcan
Ethanol oxidation; PtRu/Vulcan; Pt₃Sn/Vulcan; DEMS; Product distribution (Wang, H. (154) 351)

Pt₃Sn/Vulcan
Ethanol oxidation; Pt/Vulcan; PtRu/Vulcan; DEMS; Product distribution (Wang, H. (154) 351)

PtRu/Vulcan
Ethanol oxidation; Pt/Vulcan; Pt₃Sn/Vulcan; DEMS; Product distribution (Wang, H. (154) 351)

p-Type
SOFC; Interconnection; Bi-layer; n-Type (Huang, W. (154) 180)

PVDF
Fuel cells; Proton exchange membrane; SEBS; Melt blending; Compatibilization (Mokrini, A. (154) 51)

Pyrazolium imide
Pyrazolium imide; Plastic crystals; Solid electrolytes; Ionic liquids; Lithium batteries (Abu-Lebdeh, Y. (154) 255)

Rapid
Fuel cell systems; Simulation; Control; Prototyping; Air supply; Fuel processing (Pischinger, S. (154) 420)

Rate
Anode; Li-ion batteries; $\text{Li}_4\text{Ti}_5\text{O}_{12}$; Conductivity (Wolfenstine, J. (154) 287)

Rate capability
 o-LiMnO_2 cathode; Li and F additions; Elevated-temperature cycling; Lithium-ion batteries; Capacity fading (Kim, T.-J. (154) 268)

Rechargeable bipolar battery
Rechargeable bipolar battery; Zn-polyaniline; Carbon doped polyethylene (CDPE); Battery available capacity (BAC); ANN modeling; Simultaneous prediction (Karami, H. (154) 298)

Recirculation
Gasoline reforming; Efficiency; System configuration (Schäfer, J. (154) 428)

Reduced model
DMFC; System analysis; Transfer function; Transient response; Dynamic operation (Krewer, U. (154) 153)

Reformer
Fuel processor; Fast start; Hydrogen; Gasoline; Automotive fuel cell (Ahmed, S. (154) 214)

Reformers
Biomass; Biofuels; Organic waste; Fuel cells (Gair, S. (154) 472)

Relative humidity distribution
PEFC; Numerical analysis; Current density distribution; Membrane; Gas diffusion layer (Inoue, G. (154) 8)

Reliability
Oil; Hydrogen; Fuel cells; Cost; European union research (Zegers, P. (154) 497)

Renewable energies
Renewable energies; Thermal behaviour; Storage technologies (Perrin, M. (154) 545)

Response time
Gasoline fuel processor; On-board hydrogen production; Automotive; Polymer electrolyte membrane fuel cell; Battery size (Mitchell, W. (154) 489)

Safety
Lithium cell; Overcharge; Electrolyte (Watanabe, Y. (154) 246)

SEBS
Fuel cells; Proton exchange membrane; PVDF; Melt blending; Compatibilization (Mokrini, A. (154) 51)

Selfdischarge
Ultracapacitors; Ultracap modules; Temperature characteristics; Frequency characteristics; Cell voltage balancing (Michel, H. (154) 556)

Separator
PEFC; Numerical analysis; Current density distribution; Gas flow rate distribution (Inoue, G. (154) 18)

Simulation
Fuel cell systems; Control; Rapid; Prototyping; Air supply; Fuel processing (Pischinger, S. (154) 420)

Simulation
PEM fuel cell; Dynamic modelling; Hardware in the loop; Test benches (Lemeš, Z. (154) 386)

Simultaneous prediction
Rechargeable bipolar battery; Zn-polyaniline; Carbon doped polyethylene (CDPE); Battery available capacity (BAC); ANN modeling (Karami, H. (154) 298)

SOFC
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SOFC
SOFC; Interconnection; Bi-layer; p-Type; n-Type (Huang, W. (154) 180)

SOFC
SOFC; Thermal management; Start-up (Apfel, H. (154) 370)

SOFC stack
SOFC stack; Auxiliary power unit; Diesel reformate (Stelter, M. (154) 448)

Sol-gel synthesis
Li ion batteries; Cathode materials; Electrochemical properties (Majumder, S.B. (154) 262)

Solid electrolyte
Solid electrolyte; Ceria; Co-doping; Microstructure; Impedance spectroscopy (Tadokoro, S.K. (154) 1)

Solid electrolytes
Pyrazolium imide; Plastic crystals; Ionic liquids; Lithium batteries (Abu-Lebdeh, Y. (154) 255)

Solid oxide fuel cells
Hammerstein systems; Nonlinear systems; Parameter estimation; System identification (Jurado, F. (154) 145)

Solid oxide fuel cells
Solid oxide fuel cells; Dynamic behaviour; Cathode activation; Thermal cycling; Degradation (Molinelli, M. (154) 394)

Spinel
Oxygen deficiency; 3.2 V plateau; Structure around deficiency (Yoshio, M. (154) 273)

Spinel-type
Lithium-ion batteries; $\text{LiAl}_{0.1}\text{Mn}_{1.9}\text{O}_4$; Microwave (Bao, S.-J. (154) 239)

Stack
PEM; Fuel cell; Impedance; EIS (Hakenjos, A. (154) 360)

Start-up
SOFC; Thermal management (Apfel, H. (154) 370)

State of charge
Battery dynamic; Battery impedance; State of health (Jossen, A. (154) 530)

State of health
Battery dynamic; Battery impedance; State of charge (Jossen, A. (154) 530)

Statistical analysis
PEMFC; Cold start; Portable fuel cells; Degradation (Oscipok, M. (154) 404)

Steam reforming
Diesel fuel processor; Autothermal reforming; PEM fuel cells; APU (Cutillo, A. (154) 379)

Storage technologies
Renewable energies; Thermal behaviour (Perrin, M. (154) 545)

Structure around deficiency
Oxygen deficiency; Spinel; 3.2 V plateau (Yoshio, M. (154) 273)

Structure characteristics
Structure characteristics; High-rate dischargeability; Low-temperature dischargeability; Exchange current density; Hydrogen diffusion coefficient (Zhang, X. (154) 290)

Sulfur poisoning
Hydrogen; Autothermal reforming; Fuel processing; Diesel reforming; Catalyst (Cheekatamarla, P.K. (154) 223)

Surface area
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Surface oxygen
Electrochemical capacitor; Activated carbon; Microporosity; Surface area; Calorimetry (Centeno, T.A. (154) 314)

System analysis
DMFC; Transfer function; Reduced model; Transient response; Dynamic operation (Krewer, U. (154) 153)

System configuration
Gasoline reforming; Efficiency; Recirculation (Schäfer, J. (154) 428)

System identification
Hammerstein systems; Nonlinear systems; Parameter estimation; Solid oxide fuel cells (Jurado, F. (154) 145)

Tank systems
Hydrogen; Cryogenic; High pressure; Hydrides; Energy density (Eberle, U. (154) 456)

Temperature characteristics
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Temperature effects

Polymer electrolyte fuel cell; H₂/CO₂ oxidation; Air bleed; Catalyst poisoning; Model studies (Behm, R.J. (154) 327)

Test benches

PEM fuel cell; Dynamic modelling; Hardware in the loop; Simulation (Lemeš, Z. (154) 386)

Test procedures

Ultracapacitors; Automotive applications; Automotive specifications; United States Advanced Battery Consortium (Ashtiani, C. (154) 561)

Thermal behaviour

Renewable energies; Storage technologies (Perrin, M. (154) 545)

Thermal cycling

Solid oxide fuel cells; Dynamic behaviour; Cathode activation; Degradation (Molinelli, M. (154) 394)

Thermal management

SOFC; Start-up (Apfel, H. (154) 370)

Transfer function

DMFC; System analysis; Reduced model; Transient response; Dynamic operation (Krewer, U. (154) 153)

Transient response

DMFC; System analysis; Transfer function; Reduced model; Dynamic operation (Krewer, U. (154) 153)

Tubular SOFC

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Two-phase flow

PEM fuel cell; Gas diffusion layer; Visualization; Microscale; Hydrophobic porous media; Fibrous media (Litster, S. (154) 95)

Ultracap modules

Ultracapacitors; Temperature characteristics; Frequency characteristics; Selfdischarge; Cell voltage balancing (Michel, H. (154) 556)

Ultracapacitors

Ultracapacitors; Test procedures; Automotive applications; Automotive specifications; United States Advanced Battery Consortium (Ashtiani, C. (154) 561)

Ultracapacitors

Ultracapacitors; Ultracap modules; Temperature characteristics; Frequency characteristics; Selfdischarge; Cell voltage balancing (Michel, H. (154) 556)

United States Advanced Battery Consortium

Ultracapacitors; Test procedures; Automotive applications; Automotive specifications (Ashtiani, C. (154) 561)

Visualization

PEM fuel cell; Gas diffusion layer; Two-phase flow; Microscale; Hydrophobic porous media; Fibrous media (Litster, S. (154) 95)

3.2 V plateau

Oxygen deficiency; Spinel; Structure around deficiency (Yoshio, M. (154) 273)

VRLA

VRLA; High temperature; Low temperature; Idling stop (Ohmae, T. (154) 523)

VRLA batteries

VRLA batteries; Cycling in state of partial charge; Balance hydrogen evolution and grid corrosion (Berndt, D. (154) 509)

Water management

Air-breathing PEMFC; Planar PEMFC; Hydrophobic and hydrophilic diffusion layer; Geometry variation; Printed circuit board (PCB) (Schmitz, A. (154) 437)

Water management

Water management; Proton exchange membrane; Pressure drop; Parallel serpentine channels; Air–water behaviour; CFD modeling (Jiao, K. (154) 124)

Zn-polyaniline

Rechargeable bipolar battery; Carbon doped polyethylene (CDPE); Battery available capacity (BAC); ANN modeling; Simultaneous prediction (Karami, H. (154) 298)